

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SUNOCO PARTNERS MARKETING &
TERMINALS L.P.,

Plaintiff,

v.

POWDER SPRINGS LOGISTICS, LLC, and
MAGELLAN MIDSTREAM PARTNERS,
L.P.,

Defendants.

Civil Action No. 17-1390-RGA

MEMORANDUM OPINION

John C. Phillips, Jr., Megan C. Haney, PHILLIPS, MCLAUGHLIN & HALL, P.A., Wilmington, DE; John Keville, Michelle Replogle (argued), Michael Krill, SHEPPARD MULLIN RICHTER & HAMPTON, Houston, TX; Richard McCarty, WINSTON & STRAWN LLP, Houston, TX,

Attorneys for Plaintiff.


Roger D. Smith II, MORRIS, NICHOLS, ARSHT & TUNNELL LLP, Wilmington, DE; David S. Moreland, John W. Harbin, MEUNIER CARLIN & CURFMAN LLC, Atlanta, GA,

Attorneys for Defendant Powder Springs Logistics, LLC.

Douglas E. McCann (argued), Martina Tyreus Hufnal, Nitika Gupta Fiorella, FISH & RICHARDSON P.C., Wilmington, DE; Joseph A. Herriges, FISH & RICHARDSON P.C., Minneapolis, MN,

Attorneys for Defendant Magellan Midstream Partners, L.P.

August 31, 2022


ANDREWS, U.S. DISTRICT JUDGE:

Before me is Defendants' Renewed Motion for Judgment as a Matter of Law of No Infringement of Certain Asserted Claims and No Willful Infringement. (D.I. 795). I have reviewed the parties' briefing (D.I. 796, 810, 825), and I heard oral argument on August 3, 2022 (D.I. 849).

I. BACKGROUND

After a five-day liability trial (D.I. 817–821),¹ the jury found that Defendants literally infringed all asserted claims: claims 3, 16, and 17 of U.S. Patent No. 6,679,302 (“the ’302 patent”); claims 18, 22, 31, and 32 of U.S. Patent No. 7,032,629 (“the ’629 patent”); and claim 3 of U.S. Patent No. 9,207,686 (“the ’686 patent”).² (D.I. 743). The jury further found that Defendants willfully infringed all three patents and that Defendants failed to prove invalidity. (*Id.*). Defendants moved for judgment as a matter of law (“JMOL”) pursuant to Federal Rule of Civil Procedure 50(a) and now renew the motion under Rule 50(b). (Trial Tr. at 672:16–673:15, 1138:13–1140:1; D.I. 795). Defendants seek JMOL of non-infringement for seven of the eight asserted claims, that is, all but claim 3 of the ’302 patent; and JMOL of no willful infringement. (D.I. 796 at 2–3).

II. LEGAL STANDARD

Judgment as a matter of law is appropriate if “the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for [a] party” on an issue. FED. R. CIV. P. 50(a)(1). “Entry of judgment as a matter of law is a ‘sparingly’ invoked remedy, ‘granted only’

¹ I cite to the trial transcript as “Trial Tr.” The trial transcript is consecutively numbered.

² Defendant Powder Springs was only accused of—and only found liable for—infringing claim 3 of the ’686 patent. (See D.I. 743).

if, viewing the evidence in the light most favorable to the nonmovant and giving it the advantage of every fair and reasonable inference, there is insufficient evidence from which a jury reasonably could find liability.’” *Marra v. Phila. Hous. Auth.*, 497 F.3d 286, 300 (3d Cir. 2007) (citation omitted).

“To prevail on a renewed motion for JMOL following a jury trial, a party must show that the jury’s findings, presumed or express, are not supported by substantial evidence or, if they were, that the legal conclusion(s) implied by the jury’s verdict cannot in law be supported by those findings.” *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1348 (Fed. Cir. 1998) (cleaned up). “‘Substantial’ evidence is such relevant evidence from the record taken as a whole as might be accepted by a reasonable mind as adequate to support the finding under review.” *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984).

In assessing the sufficiency of the evidence, the Court must give the non-moving party, “as [the] verdict winner, the benefit of all logical inferences that could be drawn from the evidence presented, resolve all conflicts in the evidence in his favor and, in general, view the record in the light most favorable to him.” *Williamson v. Consol. Rail Corp.*, 926 F.2d 1344, 1348 (3d Cir. 1991). The Court “must not determine credibility of witnesses, and must not substitute its choice for that of the jury between conflicting elements in the evidence.” *Perkin-Elmer*, 732 F.2d at 893. Rather, the Court must determine whether the evidence supports the jury’s verdict. *See Dawn Equip. Co. v. Ky. Farms Inc.*, 140 F.3d 1009, 1014 (Fed. Cir. 1998); 9B CHARLES ALAN WRIGHT & ARTHUR R. MILLER, *FEDERAL PRACTICE AND PROCEDURE* § 2524 (3d ed. 2008) (“The question is not whether there is literally no evidence supporting the party against whom the motion is directed but whether there is evidence upon which the jury might reasonably find a verdict for that party.”).

III. DISCUSSION

A. Butane Vapor Pressure Limitations

Defendants argue that no reasonable juror could find that Defendants infringe the “butane vapor pressure limitations” of claims 16 and 17 of the ’302 patent; claims 18 and 22 of the ’629 patent; and claim 3 of the ’686 patent. (D.I. 796 at 6–14).

These claims all require some knowledge of the vapor pressure of the butane. Claim 17 of the ’629 patent (from which claims 18 and 22 depend), for example, recites:

17. A computer-implemented method for blending a butane stream with a gasoline stream comprising the steps of:

receiving a first measurement indicating a vapor pressure of the gasoline stream;

receiving a second measurement indicating a vapor pressure of the butane stream;

calculating a blend rate at which the butane stream can be blended with a gasoline stream; and

transmitting an instruction to a programmable logic controller for adjusting the butane stream to the calculated blend rate for blending with the gasoline stream and distributing at a rack.

(PTX 2, claim 17 (emphasis added)).

Claims 16 and 17 of the ’302 patent similarly require “transmitting . . . the butane vapor pressure to the processing unit.” (PTX 1, claim 16). Claim 1 of the ’686 patent (from which claim 3 depends) requires “providing a stream of said agent [i.e., butane] that comprises an agent vapor pressure” and “calculating a blend ratio based upon said agent vapor pressure.” (PTX 3, claim 1).

The Magistrate Judge construed the “vapor pressure” terms to have their plain and ordinary meaning, which “would seem to allow for a known or inherent value to be used . . . instead of requiring that a value be taken as a result of an active sampling and measurement of

the respective streams.” (D.I. 331 at 13–15). This Court adopted the Magistrate Judge’s recommendation and held that practicing the “feedforward claims”—i.e., the claims at issue here—“requires knowing (whether it be through, for example, actual measurement, through looking it up in a table or other resource, or through knowledge of an inherent characteristic) the vapor pressure of the gasoline or butane ‘to be blended.’” (D.I. 539 at 7). After briefing on the current motion was complete, the Federal Circuit held that the phrase “vapor pressure of the butane stream” in claim 17 of the ’302 patent covers an assumed vapor pressure value. *Sunoco Partners Mktg. & Terminals L.P. v. U.S. Venture, Inc.*, 32 F.4th 1161, 1175–76 (Fed. Cir. 2022).

Defendants argue that the undisputed evidence shows that Defendants do not know the vapor pressure (i.e., the “Reid Vapor Pressure,” or “RVP”) of the butane stream to be blended, so JMOL of non-infringement is appropriate. (D.I. 796 at 6).

It is undisputed that Defendants’ systems do not measure the vapor pressure of the butane stream to be blended. (D.I. 796 at 8; Trial Tr. at 692:25–693:19, 701:20–22 (Hitz); Trial Tr. at 887:18–889:4 (Howerton); Trial Tr. at 945:15–20 (Hill)). Sunoco instead argued to the jury that Defendants’ systems use an inherent butane RVP of 52 psi.

All of the accused systems blend butane using the blending equation set forth in U.S. Patent No. 9,080,111 (“the Huff patent”). (Trial Tr. at 439:18–21 (Huff)). The Huff patent specification provides, “[T]he blend ratio will preferably be calculated according to the following formula: $\Delta \text{ Blending \%} = (VP_{\text{target}} - VP_{\text{actual}}) * (2/100)$.” (PTX 115 at 13:40–51). The Huff patent provides, “This procedure effectively assumes a vapor pressure of the butane rather than having to monitor and use an actual value.” (*Id.* at 13:57–58). Using “well-known thermodynamic rules” (i.e., Raoult’s law), Sunoco’s expert Dr. Kytomaa showed that the 2/100 constant in Defendants’ blending equation is derived using butane’s known RVP of 52 psi.

(Trial Tr. at 565:9–566:10 (Kytomaa)). He also performed the same calculations to show that the appropriate constant would change if the systems instead blended other hydrocarbons (e.g., pentane and propane) with gasoline. (Trial Tr. at 563:18–564:17 (Kytomaa)). Based on this, Dr. Kytomaa opined that an assumed butane vapor pressure of 52 psi was “baked in” to the Defendants’ blending equation. (Trial Tr. at 565:9–566:10 (Kytomaa)).

Sunoco also presented some Magellan documents to show knowledge of an inherent butane vapor pressure. Magellan’s 2009 Authorization for Expenditure stated that “the current system” uses “an equation that assumes 50RVP butane.” (PTX 114 at 2). Mr. Roles’ notes indicated that butane has “52 RVP.” (PTX 372 at 1; Trial Tr. at 750:11–17 (Roles); *see also* Trial Tr. at 644:21–645:8 (Kytomaa) (stating that “whether it’s 50, or 52, is largely immaterial” as “there’s some variation associated with the vapor pressure of butane”))).

Defendants argue that Sunoco has failed to show “knowledge of an inherent characteristic” of the butane stream because the evidence showed that the butane used by Defendants does not have a constant RVP of 52 psi. (D.I. 796 at 12; D.I. 849 at 21:4–11). This argument, however, is inconsistent with the Federal Circuit’s recent holding that the claims encompass an assumed vapor pressure of butane. *See Sunoco Partners*, 32 F.4th at 1175–76. The fact that the blending equation assumes a butane vapor pressure is enough to satisfy the claim limitations, even if the actual vapor pressure of the butane varies.

Further, Dr. Kytomaa reviewed “thousands of entries of butane RVP” measurements taken by Magellan and concluded that the “vast majority” were between 50 and 55 psi. (Trial Tr. at 565:2–8, 645:1–8, 646:23–648:11, 649:17–650:11, 665:23–666:12 (Kytomaa); PTX 899; *see also* Trial Tr. at 669:2–670:3 (Kytomaa) (stating that he excluded outliers based on “a scientifically widely used and generally accepted methodology in statistics”))). Dr. Kytomaa

testified that the RVP of the butane used by Defendants was “consistent with the number 52 that [he] utilized.” (Trial Tr. at 668:2–12 (Kytomaa)). The jury was entitled to accept Dr. Kytomaa’s testimony.

Thus, I find that there was substantial evidence supporting the jury’s finding that Defendants had knowledge of an inherent or assumed butane vapor pressure.

Defendants argue that no reasonable juror could have found that Defendants’ use of the constant satisfied the limitations which require “receiving a . . . measurement indicating a vapor pressure of the butane stream” (claims 18 and 22 of the ’629 patent) or “transmitting . . . the butane vapor pressure to the processing unit” (claims 16 and 17 of the ’302 patent). (D.I. 796 at 9–10). Defendants contend that the blending equation, which is hard-coded into Defendants’ PLC, does not satisfy the active steps of “receiving” and “transmitting.” (*Id.*)³

Dr. Kytomaa’s testimony on these limitations was limited. Dr. Kytomaa testified that Defendants’ systems perform the “receiving” step “by virtue of programming in or inputting into the equation the vapor pressure of the butane”—i.e., “the use of 52 PSI, and the number of 2 in 100 that has the butane vapor pressure baked into it.” (Trial Tr. at 579:19–580:5 (Kytomaa)). He testified that Defendants’ systems perform the “transmitting” step because “the equation utilizes the butane vapor pressure.” (Trial Tr. at 591:24–592:5 (Kytomaa)). Dr. Kytomaa’s conclusory testimony on these limitations does not constitute substantial evidence.

³ After oral argument, Sunoco filed a letter arguing that Defendants’ argument seeks an improper post hoc claim construction. (D.I. 837; *see also* D.I. 838, 842, 846). I do not think that is the case. Defendants are simply arguing that there is not substantial evidence supporting the jury’s finding that Defendants’ systems receive and transmit the butane vapor pressure. Neither party requested a construction of the “receiving” and “transmitting” terms, so the jury was instructed to apply the plain and ordinary meaning of these terms. (Trial Tr. at 1184:16–19). I believe Defendants’ arguments are consistent with this plain and ordinary meaning.

MobileMedia Ideas LLC v. Apple Inc., 780 F.3d 1159, 1172 (Fed. Cir. 2015). I agree with Defendants that no reasonable juror could find that Defendants’ use of a constant satisfies the “receiving” and “transmitting” limitations.

As for infringement under the doctrine of equivalents, Dr. Kytomaa did not present any testimony relating to these limitations. (See D.I. 849 at 24:2–8). The only DOE testimony related to whether Defendants’ use of the 2/100 constant was equivalent to using a known or inherent value of 52 psi. (See Trial Tr. at 566:11–567:14 (Kytomaa)). Thus, although the jury did not reach a verdict on DOE, I find that no reasonable juror could have found infringement of the “receiving” and “transmitting” limitations under the doctrine of equivalents. *Tex. Instruments Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1567 (Fed. Cir. 1996) (“[A] patentee must . . . provide particularized testimony and linking argument as to the ‘insubstantiality of the differences’ between the claimed invention and the accused device or process . . . to support a finding of infringement under the doctrine of equivalents. Such evidence must be presented on a limitation-by-limitation basis.”).

I therefore grant JMOL of no infringement with respect to claims 18 and 22 of the ’629 patent and claims 16 and 17 of the ’302 patent.

Claim 3 of the ’686 patent does not include any limitation requiring “receiving” or “transmitting” the butane vapor pressure. Thus, because Sunoco presented substantial evidence to support the jury’s finding that Defendants had knowledge of an inherent or assumed butane vapor pressure, I deny Defendants’ motion for JMOL of no infringement with respect to claim 3 of the ’686 patent.

B. Gasoline Vapor Pressure Limitations

Defendants argue that no reasonable juror could find that Defendants infringe the “gasoline vapor pressure limitations” of claims 16 and 17 of the ’302 patent; claims 18, 22, 31, and 32 of the ’629 patent; and claim 3 of the ’686 patent. (D.I. 796 at 14).

Claims 16 and 17 of the ’302 patent recite “transmitting the gasoline vapor pressure . . . to the processing unit” and “calculating the blend ratio from the gasoline vapor pressure.” (PTX 1, claim 16). Claim 17 of the ’629 patent (from which claims 18 and 22 depend) requires “receiving a first measurement indicating a vapor pressure of the gasoline stream.” (PTX 2, claim 17). Claims 31 and 32 of the ’629 patent require “receiving a first measurement indicating a vapor pressure of the gasoline stream.” (*Id.*, claim 31). Claim 1 of the ’686 patent (from which claim 3 depends) requires “periodically determining said gasoline vapor pressure” and “calculating a blend ratio based upon . . . said gasoline vapor pressure.” (PTX 3, claim 1). Just like the butane vapor pressure limitations, the gasoline vapor pressure limitations require “knowing . . . the vapor pressure of the gasoline . . . ‘to be blended.’” (D.I. 539 at 7).

Defendants argue that the jury’s verdict of infringement is not supported by substantial evidence because Defendants’ systems do not have knowledge of the vapor pressure of the gasoline to be blended, as required by this Court’s construction. (D.I. 796 at 14).

Sunoco first responds that Defendants never moved for JMOL on this ground at trial and thus cannot file a renewed motion for JMOL on this basis. (D.I. 810 at 12). Defendants moved for JMOL of non-infringement of all asserted claims, but only raised the “rack” and “butane vapor pressure” limitations. (Trial Tr. at 672:16–673:15, 1138:13–1139:19). Defendants argue that they sufficiently preserved their argument by moving for JMOL of non-infringement of all asserted claims. (D.I. 825 at 7). I do note that a prior case in this district found the Rule

50(a)(2) specificity requirement to be met where the defendant simply listed the claims that were not directly and indirectly infringed. *CIF Licensing, LLC v. Agere Sys. Inc.*, 727 F. Supp. 2d 337, 354 (D. Del. 2010). Nonetheless, I do not need to decide the non-preservation issue because Defendants’ renewed motion for JMOL can be denied on the merits.

The evidence at trial showed that Defendants’ systems only have analyzers downstream of the blending point. (Trial Tr. at 630:7–20 (Kytomaa)). The claims, however, do not require measurement upstream of the blending point. Sunoco presented evidence that Defendants measure the vapor pressure of the unblended gasoline prior to butane injection and calculate a blend ratio based on the measurement. (Trial Tr. at 549:15–552:16, 558:18–559:21, 570:12–18, 590:9–24 (Kytomaa)). This is substantial evidence supporting the jury’s verdict. I therefore deny Defendants’ motion for JMOL on these grounds.

C. Willful Infringement

1. The ’302 and ’629 Patents

Defendants argue that no reasonable juror could find that Defendants willfully infringed the ’302 and ’629 patents. (D.I. 796 at 15–18).

A determination of willfulness requires a finding of “deliberate or intentional” infringement. *SRI Int’l, Inc. v. Cisco Sys., Inc.*, 14 F.4th 1323, 1330 (Fed. Cir. 2021) (quoting *Eko Brands, LLC v. Adrian Rivera Maynez Enters., Inc.*, 946 F.3d 1367, 1378 (Fed. Cir. 2020)), *cert. denied*, 142 S. Ct. 2732 (2022). A finding of “subjective willfulness,” proof that the accused infringer acted in the face of a risk of infringement that was “either known or so obvious that it should have been known to the accused infringer,” can satisfy this standard. *WesternGeco L.L.C. v. ION Geophysical Corp.*, 837 F.3d 1358, 1362 (Fed. Cir. 2016) (quoting

Halo Elecs., Inc. v. Pulse Elecs., Inc., 579 U.S. 93, 101 (2016)), *rev'd on other grounds*, 138 S. Ct. 2129 (2018).

I find that there is substantial evidence supporting the jury's verdict of willfulness for the '302 and '629 patents. For instance, Sunoco presented evidence of meetings between Texon (the company from whom Sunoco acquired the asserted patents) and Magellan regarding Texon's offer to license its butane blending systems to Magellan. In May 2003, Texon presented its "Patent Pending Automated Butane Blending System" to Magellan. (PTX 82 at 2). Texon's presentation provided the '302 patent application number and stated that the systems blend "as the gasoline is being delivered into trucks or pipelines." (*Id.* at 2, 8). In March 2004, Texon presented Magellan with its "Patented Automated Butane Blending System," which had "[p]roven results . . . in high volume terminals at the truck loading rack or online pipeline blending." (PTX 83 at 1, 3). In October 2006, Texon presented Magellan with its "Patent Proven Design" for "blending on pipelines and as product moves from tanks to a terminal's truck loading rack." (DTX 1085 at 3, 6).

After this presentation, Mark Roles, Magellan's commercial project manager at the time, sent an internal email asking whether there was "more value for Magellan keeping everything internal." (DTX 246 at 1). He stated, "I don't think it's ethical for us to drag [Texon] down the road and leach information, and then decide to go with Moyer's group in the end." (*Id.*).

Mr. Roles then requested more information regarding Texon's systems. (PTX 373; *see* PTX 312 (Texon email copying Mr. Roles: "Mark specifically wants data from a truck rack blending system and not one of our pipeline systems where we have both an upstream and downstream Grabner"))). Defendants argue, however, that there is no evidence that Magellan received any technical information on Texon's systems. (D.I. 796 at 16). They contend that

the evidence shows that Magellan only attempted to get “data showing that Texon’s systems could reliably and consistently blend.” (*Id.* at 17; *see* DTX 184; DTX 185). Mr. Roles testified that Texon was only able to provide three samples, not the requested blend data. (Tr. at 738:12–739:19 (Roles); DTX 185; DTX 219).

Sunoco responds that there was sufficient evidence for a jury to infer that Magellan did get detailed technical information about Texon’s blending systems. (D.I. 810 at 14). Mr. Roles sent an email to his boss, Rhonda Staggs, stating that he would “get feedback from Engineering on Texon’s system.” (PTX 91 at 2). Ms. Staggs asked if “Engineering [could] do the same project for less cost,” and Mr. Roles’ handwritten notes indicated that they could not because “Engineering would take 6–12 months to develop.” (*Id.* at 1; Trial Tr. at 755:20–757:3 (Roles)). Further, Mr. Roles’ notes on “Texon – Engineering Feedback” indicated that the “[p]rogram to run the system would be difficult to build” and would take “[a] lot of man hours [i.e., about one year] developing.” (PTX 402 at 3). Based on this evidence, a reasonable juror could have found that Magellan gained enough information about Texon’s patents and systems so that, even if it did not know, the risk of infringement was so obvious it should have known.

Sunoco also presented evidence that Magellan filed a patent application in November 2010 for Mr. Huff’s feedback system, citing Sunoco’s ’302, ’629, and ’671 patents (which is a continuation-in-part of the ’629 patent, which is a continuation of the ’302 patent). (PTX 115; Trial Tr. at 432:6–24 (Huff)). In September 2014, Magellan’s patent application was rejected as anticipated by Sunoco’s ’671 patent. (Trial Tr. at 482:9–485:13 (Huff); PTX 411 at 278–90). Mr. Huff testified that Magellan did not change their physical systems after this initial rejection. (Trial Tr. at 491:1–5, 496:2–16 (Huff)). Yet, Defendants argue that this evidence does not support the jury’s finding of willfulness because “Magellan was able to convince the examiner

that Magellan’s systems were different, such that the examiner granted Magellan a patent over Texon’s patents.” (D.I. 796 at 17). But Magellan’s patent issued after Magellan included additional limitations in the claims, so this issuance was not simply based on Magellan’s arguments to the examiner. (Trial Tr. at 485:21–487:9 (Huff); PTX 411 at 317–26, 337–44).

The jury also heard testimony from Mr. Huff that Magellan knew there was a risk of infringement in 2012. (Trial Tr. at 495:9–496:1 (Huff)). Further, there was evidence that Magellan became a licensee of Sunoco’s patents in May 2015 after it acquired the Perimeter terminal. (Trial Tr. at 215:16–217:15 (Colella); PTX 546); *see Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1245 (Fed. Cir. 2017) (finding that the jury’s willfulness verdict was supported by “evidence of the parties’ prior business dealings from which the jury could have inferred that [the infringer] believed that it needed to . . . license [the patents] to avoid infringement”).

Based on this evidence, a reasonable jury could have found that Defendants acted despite a risk of infringement that was either known or so obvious it should have been known.

Defendants also argue that no reasonable jury could have found that Defendants had the specific intent to infringe because there was evidence that they had a reasonable basis to believe that their systems did not infringe. (D.I. 796 at 18–20). First, Defendants contend that Magellan believed its systems were different because they blended inline to a tank, while Texon’s systems blended to a rack. (*Id.* at 18–19). But Sunoco presented substantial evidence allowing the jury to conclude otherwise. For example, Sunoco presented evidence showing that Texon offered Magellan its patented pipeline systems, not just rack systems. (*See* PTX 82 at 2, 8; PTX 83 at 1, 3; DTX 1085 at 3, 6). In a 2009 email, Melanie Little, Magellan’s Senior VP of Operations, noted, “Texon indicates in the CIM [i.e., confidential information memorandum] that

they have a patent not only for rack blending butane system, but also for inline pipeline butane blending.” (Trial Tr. at 279:2–14 (Little)).

Second, Defendants contend that the jury heard evidence that Magellan had a “subjective belief that its way of blending (feedback) was different and superior to Texon’s way (feedforward),” and switched its systems from feedforward to feedback in 2010. (D.I. 796 at 19). But Defendants’ belief that their systems were “superior” does not show that they believed their systems did not infringe. Further, the jury heard evidence showing that Magellan did not subjectively believe Sunoco’s patents or systems were this limited. (D.I. 810 at 16). For example, Magellan knew that Texon had pipeline systems with downstream analyzers in 2006. (PTX 312; Trial Tr. at 754:21–755:12 (Roles)). Further, the examiner initially rejected the patent application for Magellan’s feedback systems as anticipated by the feedforward systems in the ’671 patent. (Trial Tr. at 482:9–485:13 (Huff); PTX 411 at 278–90).

Therefore, I find that a reasonable juror could have concluded that Defendants had no reasonable basis to believe that their systems did not infringe.

Drawing all logical inferences in favor of Sunoco as the non-moving party, I find that there was substantial evidence in the record supporting the jury’s determination that Defendants willfully infringed the ’302 and ’629 patents. Thus, I will deny the motion for JMOL of no willful infringement for the ’302 and ’629 patents.⁴

⁴ Defendants also argue (in a footnote) that Sunoco’s willful infringement theories are untimely because they were raised for the first time during opening statements. (D.I. 796 at 18 n.9). Defendants, however, did not object to these statements at trial. (See Trial Tr. at 117:23–121:24). As far as I am concerned, this argument is waived. *Waldorf v. Shuta*, 142 F.3d 601, 629 (3d Cir. 1998) (“[I]t is clear that a party who fails to object to errors at trial waives the right to complain about them following trial.”).

2. The '686 Patent

Defendants also move for JMOL of no willful infringement of the '686 patent.

Defendants reason that all of Sunoco's evidence in support of its willfulness case pre-dated the issuance of the '686 patent in December 2015. (D.I. 796 at 18).

The Federal Circuit has noted, however, "[P]re-patent conduct may also be used to support a finding of willfulness." *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1581 (Fed. Cir. 1992). Accordingly, I find that there is substantial evidence supporting the jury's finding that Defendants knew of the '686 patent when it issued in December 2015 and knew (or it was so obvious they should have known) they were infringing it thereafter.⁵

Magellan's 2010 patent application cited Sunoco's '302, '629, and '671 patents. (PTX 115; Trial Tr. at 432:6–24 (Huff)). The '686 patent is a continuation of the '671 patent and was published in August 2012. (PTX 3; Trial Tr. at 536:8–17 (Kytomaa)). Further, when Magellan acquired the Perimeter terminal in May 2015, it assumed a 2012 license agreement requiring it to pay license fees to Sunoco. (PTX 546; Trial Tr. at 217:5–15 (Colella)). The agreement licensed the '302 patent and "all U.S. patents and patent applications claiming priority thereto." (PTX 476 at 8; Trial Tr. at 217:16–218:2 (Colella)). The agreement specifically listed the '629 and '671 patents, and the '951 publication (of which the '686 patent is a continuation). (PTX 476 at 8). Although the '686 patent is not listed in this agreement, it was included in the license, as the '686 patent claims priority to the '302 patent. (See Trial Tr. at 242:5–246:18 (Colella)). Additionally, the '686 patent has the same specification as and similar claims to the '671 patent,

⁵ "We presume the jury resolved all underlying factual disputes in favor of the verdict." *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1040 (Fed. Cir. 2016) (en banc).

which the examiner found anticipated the original claims in Magellan’s patent. (*Compare* PTX 3, claims 1 & 3, *with* PTX 116, claims 1 & 5).

Considering the totality of the circumstances, I find that there is substantial evidence to support the jury’s finding that Defendants willfully infringed the ’686 patent. *See, e.g., WCM Indus., Inc. v. IPS Corp.*, 721 F. App’x 959, 970–71 (Fed. Cir. 2018) (affirming the district court’s denial of JMOL of no willfulness because the patentee “provided sufficient evidence for a reasonable jury to conclude that [the infringer] *did* know of [the] patents as they issued,” including that the infringer knew of related patents, knew the patentee’s products were marked “patent pending,” and had “a culture of copying”); *SIMO Holdings Inc. v. Hong Kong uCloudlink Network Tech. Ltd.*, 396 F. Supp. 3d 323, 334–35 (S.D.N.Y. 2019) (denying JMOL of no willful infringement where “there was circumstantial evidence that . . . was sufficient for the jury to reasonably infer that [the infringer] had knowledge of the [patent],” including that the infringer had knowledge of the parent patent disclosing the “same method and apparatus,” the infringer’s internal architecture documents bore “notable similarities” to the patent, and the infringer hired the patentee’s former employee).

I therefore deny Defendants’ motion for JMOL of no willful infringement for the ’686 patent.

IV. CONCLUSION

An appropriate order will issue.